

What is Claimed:

1. A method for synchronizing multiple instances of a storage platform for a hardware/software interface systems (e.g., WinFS), said method comprising:
dividing said storage platform into basic units of granularity (e.g., change units);
sequentially enumerating changes and tracking said changes on a per change unit basis;
for each instance, tracking the state of changes for that instances, as well as the state of changes for a plurality of other known instances in the sync community (sync partners); and
for synchronization, identifying new changes by comparing the enumerated changes for a particular instance with the state of changes for that instance.
2. The method of claim 1 wherein said change unit is an Item.
3. The method of claim 1 wherein a change unit is a Property.
4. The method of claim 1 wherein a change unit is an individual Property of an Item, Extension, or Relationship (but not a Property of a Nested Element in said Item, Extension, or Relationship).
5. The method of claim 1 wherein said multiple instances of said storage platform comprise a multi-master sync community.
6. The method of claim 1 wherein changes to a replica are uniquely enumerated based on a unique replica identification, and wherein said changes are sequentially enumerated for said replica.
7. The method of claim 1 wherein the changes are enumerated at a change unit level.

8. The method of claim 1 wherein conflicts are detected and resolved at a change unit level.
9. The method of claim 1 wherein said instances maintain a synchronization mapping of their known sync partners with which to synchronize in a sync community.
10. The method of claim 9 wherein an instance may have multiple mappings in order to enable different synchronization behaviors with different sync partners in the same sync community.
11. The method of claim 9 wherein said mapping comprises, for at least one sync partner, a community identification and a mapping identification for said sync partner, in order to synchronize with said sync partner without information pertaining to a location for said sync partner.
12. A system for synchronizing multiple instances of a storage platform for a hardware/software interface systems (e.g., WinFS), said system comprising:
 - a subsystem for dividing said storage platform into basic units of granularity (e.g., change units);
 - a subsystem for sequentially enumerating changes and tracking said changes on a per change unit basis;
 - a subsystem for tracking, for each instance, the state of changes for that instances, as well as the state of changes for a plurality of other known instances in the sync community (sync partners); and
 - a subsystem for synchronization, identifying new changes by comparing the enumerated changes for a particular instance with the state of changes for that instance.
13. The system of claim 12 wherein said change unit is an Item.
14. The system of claim 12 wherein a change unit is a Property.

15. The system of claim 12 wherein a change unit is an individual Property of an Item, Extension, or Relationship (but not a Property of a Nested Element in said Item, Extension, or Relationship).
16. The system of claim 12 wherein said multiple instances of said storage platform comprise a multi-master sync community.
17. The system of claim 12 wherein changes to a replica are uniquely enumerated based on a unique replica identification, and wherein said changes are sequentially enumerated for said replica.
18. The system of claim 12 wherein the changes are enumerated at a change unit level.
19. The system of claim 12 wherein conflicts are detected and resolved at a change unit level.
20. A computer-readable medium comprising computer readable instructions for synchronizing multiple instances of a storage platform for a hardware/software interface systems (e.g., WinFS), said computer-readable instructions comprising instructions for:
 - dividing said storage platform into basic units of granularity (e.g., change units);
 - sequentially enumerating changes and tracking said changes on a per change unit basis;
 - for each instance, tracking the state of changes for that instances, as well as the state of changes for a plurality of other known instances in the sync community (sync partners); and
 - for synchronization, identifying new changes by comparing the enumerated changes for a particular instance with the state of changes for that instance.
21. The computer-readable instructions of claim 20 further comprising instruction wherein said change unit is an Item.
22. The computer-readable instructions of claim 20 further comprising instruction wherein a change unit is a Property.

23. The computer-readable instructions of claim 20 further comprising instruction wherein a change unit is an individual Property of an Item, Extension, or Relationship (but not a Property of a Nested Element in said Item, Extension, or Relationship).
24. The computer-readable instructions of claim 20 further comprising instruction wherein said multiple instances of said storage platform comprise a multi-master sync community.
25. The computer-readable instructions of claim 20 further comprising instruction wherein changes to a replica are uniquely enumerated based on a unique replica identification, and wherein said changes are sequentially enumerated for said replica.
26. The computer-readable instructions of claim 20 further comprising instruction wherein the changes are enumerated at a change unit level.
27. The computer-readable instructions of claim 20 further comprising instruction wherein conflicts are detected and resolved at a change unit level.